What Is Claimed Is:

1. A device for adjusting the chromatic dispersion in an optical transmission system (1), the device comprising

- an optical element having a temperature-dependent chromatic dispersion, as well as
- a device (19) for adjusting a temperature or a temperature distribution of at least one region of the optical element for providing a predefined chromatic dispersion of the optical element.

2. The device as recited in Claim 1, wherein the optical element includes a material that exhibits an essentially monotonic dependence of the chromatic dispersion upon its temperature.

3. The device as recited in one of Claims 1 or 2, wherein the optical element includes a material which exhibits a dispersion coefficient that has an inverted sign compared to the dispersion coefficient of the optical transmission system.

4. The device as recited in one of Claims 1 through 3, wherein the optical element includes an optical fiber (17), especially a glass fiber.

5. The device as recited in one of Claims 1 through 4, wherein the device for adjusting a temperature or temperature distribution includes a temperature-control device (21).

6. The device as recited in Claim 5, wherein the temperature-control device (21) includes a thermostat device.

7. The device as recited in one of Claims 1 through 6, characterized by a device (27) for measuring the chromatic dispersion.

8. The device as recited in one of Claims 1 through 7, characterized by at least two optical elements having a temperature-dependent chromatic dispersion, which are assigned to separate inputs (151, 152) and outputs (154, 155), having a device (19) in common for adjusting a joint temperature or temperature distribution of at least one region of the optical elements (17).

9. An optical transmission system (1), comprising at least one device (15), arranged along the optical path between a transmitter and a receiver, for adjusting the chromatic dispersion of the optical transmission system (1), in particular as recited in one of the preceding claims, the device featuring

- an optical element (17) having a temperature-dependent chromatic dispersion, as well as
- a device (19) for adjusting a temperature or a temperature distribution of at least one region of the optical element (17) for providing a predefined chromatic dispersion of the optical element.

10. The optical transmission system as recited in Claim 9, characterized by a device (23, 25) for feeding a test signal for measuring the chromatic dispersion.

11. The optical transmission system as recited in Claim 9 or 10,
characterized by at least one device (27) for measuring the chromatic dispersion in the transmission system.

12. The optical transmission system as recited in one of Claims 9 through 11,
wherein the device (15) for adjusting the chromatic dispersion of the optical transmission system includes a temperature-control device (21).

13. The optical transmission system as recited in Claim 12, wherein the temperature-control device (21) regulates the temperature as a function of a signal that corresponds to a measured value of the chromatic dispersion.

14. The optical transmission system as recited in one of claims 9 through 13,
at least two devices for adjusting the chromatic dispersion of the optical transmission system that are disposed one after the other along the optical path being interconnected via an optical monitoring channel (107).

15. The optical transmission system as recited in one of claims 9 through 14,
at least two devices for adjusting the chromatic dispersion of the optical transmission system that are disposed one after the other along the optical path being connected via an optical monitoring channel (107) to a computing device (158) for ascertaining the settings of the devices.

16. A method for adjusting the chromatic dispersion in an optical transmission system (1), particularly as recited in one of Claims 9 through 15,
a predetermined temperature or temperature distribution of at least one region of an optical element (17) being adjusted so that the optical element exhibits a predetermined chromatic dispersion.

17. The method as recited in Claim 16,
wherein the chromatic dispersion in the optical transmission system is measured, and the temperature or temperature distribution is adjusted as a function of the measurement.

18. The method as recited in Claim 16 or 17,
wherein the chromatic dispersion in the optical transmission system (1) is ascertained by measuring the temperature at at least one location (30 - 34) in the optical transmission system (1).

19. The method as recited in one of Claims 16 through 18,
wherein the temperature or temperature distribution of the optical element (17) is adjusted in such a way that the chromatic dispersion of the optical transmission system (1) is compensated.

20. The method as recited in one of Claims 16 through 19,
wherein the temperature or temperature distribution of an optical element (17) having a temperature-dependent chromatic dispersion is adjusted as a function of the adjustment of at least one further element having a temperature-dependent chromatic dispersion in the optical transmission system.

21. The method as recited in one of Claims 16 through 20,
wherein the chromatic dispersion of at least one section of the optical transmission system is ascertained by feeding and evaluating a test signal (101, 102).

22. The method as recited in Claim 21,
wherein the differential phase shift of wavelength-modulated test signals is measured for determining the chromatic dispersion.